## **Abstract**

A system for classifying different types of sheeting materials of road signs depicted in a videostream compares estimated retroreflectivity values against known minimum retroreflectivity values for each of a plurality of colors. Once a road sign has been identified in the videostream, the frames associated with that road sign are analyzed to determine each of a plurality of colors present on the road sign. An estimated retroreflectivity for each of the plurality of colors present on the road sign is then determined. By comparing the estimated retroreflectivity for each of the plurality of colors against known minimum retroreflectivity values for the corresponding color for different types of sheeting materials, an accurate determination of the classification of the sheeting material of the road sign is established. Preferably, certain conditions of gross failure of the sheeting material are filtered out before classification of the sheeting material is determined.